DOCUMENT RESUME

ED 021 508 FL 000 893

By- Edwards, K. F foulkes

ALGORITHMS AND THE TEACHING OF GRAMMAR.

Audio-Visual Language Association, London (England).
Pub Date 67
Note- 4p.
Journal Cit- Audio-Visual Language Journal; v5 n1 p27-29 Summer 1967
EDRS Price MF-$0.25 HC-$0.24
Descriptors- *ALGORITHMS, ENGLISH, GERMAN, *GRAMMAR, *LANGUAGE INSTRUCTION, *SECOND LANGUAGE LEARNING, *TEACHING METHODS

The construction of algorithms to present grammatical rules is advocated on the basis of clarity and ease of memorization. Algorithmic procedure is demonstrated for the introduction of subordinate clauses by conjunctions in German, and the formation of plural nouns in English. (AF)

The views expressed in individual articles in the AUDIO-VISUAL LANGUAGE JOURNAL JOURNAL OF APPLIED LINGUISTICS AND LANGUAGE TEACHING TECHNOLOGY are not necessarily the official views of the JOURNAL or of the ASSOCIATION

AUDIO-VISUAL LANGUAGE JOURNAL

JOURNAL OF APPLIED LINGUISTICS AND LANGUAGE TEACHING TECHNOLOGY

ORGAN OF THE AUDIO-VISUAL LANGUAGE ASSOCIATION

AUDIO-VISUAL LANGUAGE JOURNAL

Editorial:

H. Friedmann, Department of Modern Languages, Holborn College of Law, Languages and Commerce, Red Lion Square, London, W.C.1.

Advertising:

B. Abbs, Advertising Director.

V. L. Morgan, Advertising Manager, AVL Journal, Hanbury Tomsett & Co., Ltd., Warner House, Warner Street, London, E.C.1. Tel. 01-837 2767

Subscriptions:

Miss Jean Guy, 7 Shelley Close, Langley, Bucks.

AUDIO-VISUAL LANGUAGE ASSOCIATION

Membership:

Miss A. Gray, 25 Kensington Park Gardens, London, W.11.

Subscriptions:

Dr. D. Van Abbé, 51 Derwent Close, Cambridge.

Conferences:

J. Gordon, 53 Kensington Gardens, Cranbrook, Ilford, Essex.

Vol. V, 1. Summer 1967

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY L. R. Cole for Audio-Visual Language Journal TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

© 1967 by the Editor, Audio-Visual Language Journal, (Journal of applied Linguistics and Language Teaching Technology) incorporating AVLA News.

All communications to the Editor.

The AUDIO-VISUAL LANGUAGE JOURNAL appears three times a year.

All rights of reproduction, translation and adaptation reserved for all countries.

Editor: H. Friedmann, Holborn College of Law, Languages and Commerce, Red Lion Square, London, W.C.1.

Editorial Committee: H. Friedmann, B. Abbs, J. Gordon, J. B. Kay, V. L. Morgan.
Ex-Officio: G. Edson (Association Chairman), Miss A. Gray (Association Secretary).

Printed by Hanbury, Tomsett & Co. Ltd., Warner Street, London, E.C.1.

Cover design by John Hall, ARCA.

CLOSING DATE Vol. V, 2: 15 Sept., 1967.

FL 000 893

ED021508

Contributions to the Journal:

We shall be pleased to exchange publications and to receive for publication Reviews, Articles, Correspondence, Theoretical contributions, Items of information, User's reports on course material and equipment.

Educational Institutions and Professional and Industrial Organisations are invited to send details of conferences, courses, seminars that may be of interest to our readers.

The Audio-Visual Language Association was founded in 1962 with the aim of fostering the study and promotion of language teaching by means of audio-visual and audio-lingual methods and the use of language laboratory and other teaching aids. It is concerned with all aspects of applied linguistics and language teaching technology.

Algorithms and the Teaching of Grammar

by K. Ffoulkes Edwards

Open any grammar textbook at random and you will probably find a grammatical rule which

1. Contains too many abstract nouns.
2. Contains negations and parentheses.
3. Contains too great a memory load.

The arrival of communication science warns us that abstract nouns make it difficult to form an internal image of a procedure, that too many negations obscure the meaning, that only so many bits per unit of time have a chance to enter the short term memory and even fewer the long term memory.

Cybernetic instruments are able to solve complex problems if we carefully separate the conditions under which certain operations are carried out from the operations themselves.

Programmed Learning insists that we split a difficult piece of information into its basic units and present one unit at a time.

Can we apply any of the above principles to the teaching of grammar? Teaching by algorithm appears to the writer the method incorporating most of them.

Soviet language teachers have tried to present grammar problems in this new way using a dichotomous mode of presentation. The pioneer is Prof. L. N. Landa who has written a book about *Algorithmisation and the Learning Process.*

To illustrate my point, I have taken a chapter from Buckley's *"Living German"* and reknitted it in algorithmic fashion. The lesson has not been tested on students and is simply offered for comments. It deals with subordinate clauses after: *als, bevor, bis, da, dass, damit etc.*

Sie hat bemerkt, dass Paulas Kammer in Unordnung war

Main Clause — Subordinate Clause

Nachdem Anton ausgegangen ist, ist das Haus ruhig

Subordinate Clause — Main Clause

Als, bevor, bis, da, dass, damit, indem, nachdem, ob, sobald, während, weil, wenn.

The above are conjunctions. They introduce subordinate clauses.

Translate the following sentences using the logical tree:

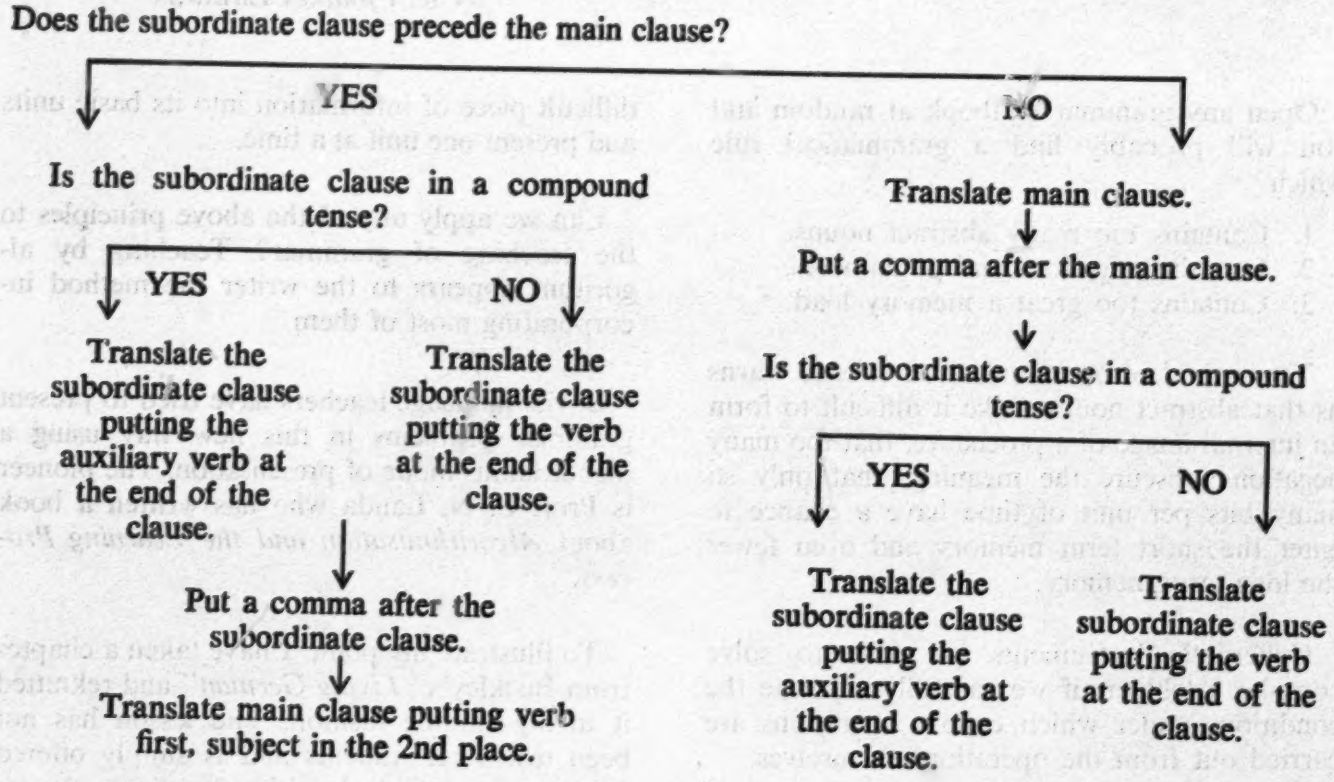
When she has made the bed, she comes down.
She notices that Paula has not slept well.
When he comes back, he plays the piano.
While she makes the beds, she sings a song.
Before they visit me, they always buy sweets.
You work in this class, so as to learn German.
Because he is my friend, he loves me.

FL 000 893 ED021508

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

LOGICAL TREE


Does the subordinate clause precede the main clause?
YES
NO
Is the subordinate clause in a compound tense?
Translate main clause.
Put a comma after the main clause.
YES
NO
Translate the subordinate clause putting the auxiliary verb at the end of the clause.
Translate the subordinate clause putting the verb at the end of the clause.
Is the subordinate clause in a compound tense?
Put a comma after the subordinate clause.
YES
NO
Translate main clause putting verb first, subject in the 2nd place.
Translate the subordinate clause putting the auxiliary verb at the end of the clause.
Translate subordinate clause putting the verb at the end of the clause.

An algorithm, as you can see, is a recipe for a procedure which will lead to the correct solution of any problem of a given class. This may be said of any rule, of course. The advantage over an ordinary rule, written in conversational discourse, is that the student is led to consider only one operation at a time. Do this, that or the other. At certain points in the process he has to ask himself: Is the condition "x" present for me to carry out operation "y"?

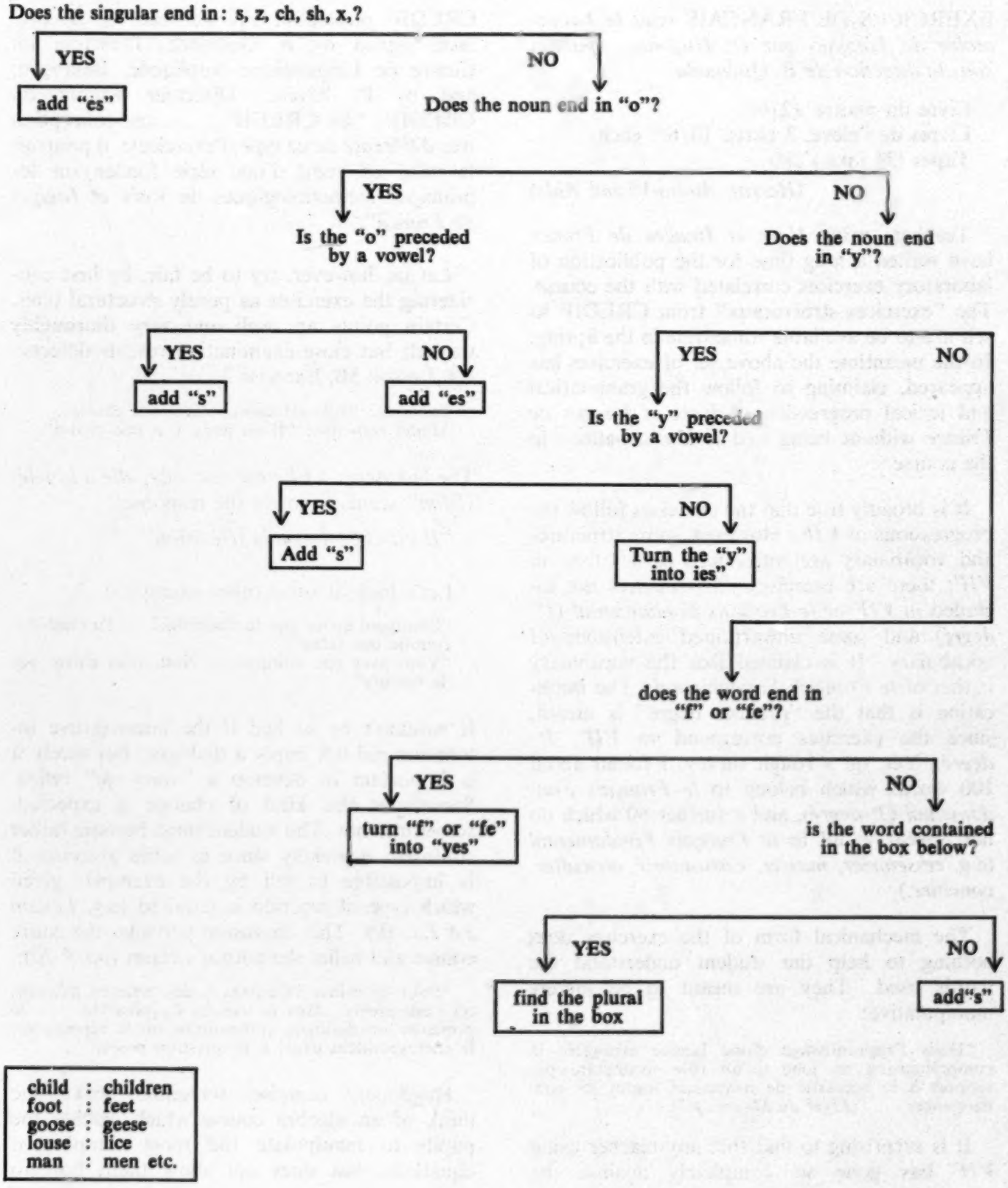
To solve everyday problems by splitting the indeterminacy of a situation in half, is no novelty. We arrange information in this binary manner without giving it the name Algorithm. Viz the following conversation. *"Whom do you think I met in the tube today?" "Male?" "No." "Is she under 25?" "Yes." "Does she live in Chiswick?" "It must be Mary."*

Teaching algorithms can only be constructed where unambiguous rules can be stated. Where a large number of exceptions exist or where two or more forms are equally acceptable, the algorithm becomes more tricky. However, even then the problem can be divided into algorithm plus comments or into a sequence of algorithms.

I have tried to turn the basic rule of how to form the plural in English into an algorithm. This might be called a partial algorithm. It does not deal with foreign words or with compound nouns etc. The intention is to teach the basic rule first, choosing the classes of nouns which fit into this limited area and only when the procedure has become automatic will other subclasses be introduced.

LOGICAL TREE

English Plurals



child	:	children
foot	:	feet
goose	:	geese
louse	:	lice
man	:	men etc.